Steciana
2014, Vol. 18(1): 29–31
doi:10.12657/steciana.018.004
www.up.poznan.pl/steciana
ISSN 1689-653X

ADDITIONAL DATA TO THE OCCURRENCE OF *ERIGERON ACRIS* SUBSP. *SEROTINUS* (WEIHE) GREUTER (ASTERACEAE) IN EUROPE

Artur Pliszko

A. Pliszko, Department of Plant Taxonomy, Phytogeography and Herbarium, Institute of Botany, Jagiellonian University in Kraków, Kopernika 31, 31-501 Kraków, Poland, e-mail: artur.pliszko@uj.edu.pl

(*Received: December 2, 2013. Accepted: January 27, 2014*)

ABSTRACT. The paper presents 14 historical records of European-temperate *Erigeron acris* subsp. *serotinus* for Ukraine using herbarium voucher specimens deposited in two Polish herbaria KRA and KRAM. This neglected native taxon is probably frequent in western Ukraine, but its populations need to be refind.

KEY WORDS: *Erigeron acris* subsp. *serotinus*, herbarium records, taxonomy, chorology, Ukraine

INTRODUCTION

Erigeron acris subsp. *serotinus* (Weihe) Greuter (Asteraceae) belongs to the circumboreal and taxonomically problematic *E. acris* L. aggregate (Šída 1998, Nesom 2004, 2008). The name at subspecies rank was proposed by Greuter (2003, 2006–2009) in consequence of the new taxonomic treatment of Astereae in Europe and Mediterranean countries, and thus previously used scientific names *E. serotinus* Weihe and *E. muralis* Lapeyr., now are placed into the synonymy.

From the viewpoint of chorology, *Erigeron acris* subsp. *serotinus* is a European-temperate taxon, which has been reported from the United Kingdom, Spain, France, Switzerland, Italy, Austria, Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, Macedonia, Hungary, Romania, Germany, the Czech Republic, Slovakia, and Poland (Šída 1998, Greuter 2006–2009), and its occurrence outside of the native range is unknown. It is found in mountains and highlands as well as in lowlands.

Erigeron acris subsp. *serotinus* is often equated with *E. acris* L. subsp. *acris* and therefore remains neglected in many national floras. However, it is readily distinguished from the type subspecies by its more numerous, undulate leaves with obtusely acute apex, its strong purple coloration of stem, and its linear obtuse bracts in the synflorescence (Šída 1998, 2004). Moreover, this either biennial or perennial plant flowers much later than the type subspecies, usually from the second half of July through September, and thrives on more alkaline soils. It occurs in open areas, essentially in semi-natural dry grasslands (*Festuco-Brometea*), traditionally used for grazing. Many of these grasslands have been developed as a result of secondary succession in anthropogenic habitats such as abandoned arable fields, quarries, sand and gravel pits, mine waste dumps, roadsides, railway embankments. Admittedly, both subspecies often grow together in habitats disturbed by human activities, but hybridisation between them was not confirmed.

During the taxonomical revision on herbarium specimens of *E. acris* in the herbaria at the Institute of Botany of Jagiellonian University (KRA) and W. Szafer Institute of Botany of Polish Academy of Sciences (KRAM) in Kraków in 2013, interesting historical records of *E. acris* subsp. *serotinus* for Ukraine were found.

MATERIAL AND METHODS

Morphological characters of herbarium voucher specimens were compared with data from the literature (Šída 1998, 2000, 2004). Historical stations named on the labels (in Polish) were revised using the geographical dictionary by Sulimierski et al. (1880–1902) and present administrative division of Ukraine (Verkhovna Rada… 1994–2013, Ukraine… 2006–2013). The list of localities with current names is arranged chronologically, and the

records with the same date of collection are arranged alphabetically.

RESULTS AND DISCUSSION

The visited herbaria store 16 sheets of *Erigeron acris* subsp. *serotinus*, representing 14 locatable sites within the present national borders of Ukraine (Table 1). These historical stations, referring mainly to the period of the Kingdom of Galicia and Lodomeria, have been found by five collectors: Gustaw Zipser (1 station in 1865), Aleksander Józef Ślendziński (8 stations between 1876 and 1879), Lenz (1 station in 1876), Józef Paczoski (3 stations between 1896 and 1897), and Andrzej Środoń (1 station in 1937), and nowadays are situated within four oblasts in western part of the country (i.e. Lviv Oblast, Ternopil Oblast, Ivano-Frankivsk Oblast, and Chernivtsi Oblast), and one oblast in central part of the country (i.e. Vinnytsia Oblast). Most of localities lie in Ternopil Oblast (i.e. Kryvche, Vovkivtsi, Dzvenyhorod, Ustya, Chortkiv, Uhryn, Kryvky, Kosmyryn, Nosiv, Terebovlya). Historical distribution of *E. acris* subsp. *serotinus* in Ukraine is presented on Figure 1. Interestingly, Mohyliv-Podilskyi, a station in Vinnytsia Oblast, is located on the border with Moldova along the left bank of the Dniester river.

Except Lenz who did not determine his specimens, mentioned collectors originally identified their specimens as *E. acris* or *E. acer*, notwithstanding that, some of them picked both subspecies from the same site at the same time (i.e. Ślendziński from Chortkiv in 1877, Paczoski from Terebovlya in 1896). And, very surprisingly, they omitted a type of habitat on most of the labels. Unfortunately, the published records of *E. acris* corresponding with some herbarium specimens have a similar lack of detailed information about habitat conditions (Paczoski 1898, 1899), and only general types of habitats (i.e. dry hills, rocky slopes, forest margins, and balks) were included in publications by Ślendziński (1877, 1878, 1879, 1881).

Fig. 1. Distribution map of *Erigeron acris* subsp. *serotinus* in Ukraine (based on label data of historical collections from Polish herbaria KRA and KRAM)

According to Greuter (2006–2009) *Erigeron acris* is represented by four subspecies in Ukraine: the subspecies *acris*, the subspecies *droebachiensis* (O. F. Müll.), the subspecies *podolicus* (Besser) Nyman, and the subspecies *pycnotrichus* (Vierh.) Grierson. Two other subspecies have been excluded: the subspecies *angulosus* (Gaudin) Vacc. which presence is doubtful (Mosyakin & Fedoronchuk 1999), and the subspecies *politus* (Fr.) H. Lindb. which record was derived from an error (Greuter 2006–2009). Consequently, *E. acris* subsp. *serotinus* is new for the vascular plant flora of Ukraine, however, its occurrence in western part of the country was previously suggested by Šída

Table 1. Herbarium records of *Erigeron acris* subsp. *serotinus* used in the study

No.	Date of collection	Collector	Locality	Herbarium acronym	Sheet number
1.	1865	G. Zipser	Khodovychi, Stryi Raion, Lviv Oblast	KRAM	165210
2.	9 August 1876	A.J. Ślendziński	Kryvche, Borshchiv Raion, Ternopil Oblast	KRA	0143434
3.	21 August 1876	A.J. Ślendziński	Vovkivtsi, Borshchiv Raion, Ternopil Oblast	KRA	0143436
4.	2 September 1876	A.J. Ślendziński	Dzvenyhorod, Borshchiv Raion, Ternopil Oblast	KRA	0143435
5.	7 October 1876	Lenz	Ustya (former Uście Biskupie), Borshchiv Raion, Ternopil Oblast	KRA	0143438
6.	4 August 1877	A.J. Ślendziński	Chortkiv, Chortkiv Raion, Ternopil Oblast	KRA KRAM	0143444 165340
7.	4 August 1877	A.J. Ślendziński	Uhryn, Chortkiv Raion, Ternopil Oblast	KRA	0143448
8.	30 July 1878	A.J. Ślendziński	Kryvky near Mykulyntsi, Terebovlya Raion, Ternopil Oblast	KRA	0143488
9.	11 August 1879	A.J. Ślendziński	Kosmyryn, Buchach Raion, Ternopil Oblast	KRA KRAM	0143439 165353
10.	23 August 1879	A.J. Ślendziński	Nosiv, Pidhaitsi Raion, Ternopil Oblast	KRA	0143455
11.	24 July 1896	J. Paczoski	Terebovlya, Terebovlya Raion, Ternopil Oblast	KRAM	165393
12.	30 July 1896	J. Paczoski	Berehomet, Vyzhnytsia Raion, Chernivtsi Oblast	KRAM	165394
13.	3 August 1897	J. Paczoski	Mohyliv-Podilskyi, Mohyliv-Podilskyi Raion, Vinnytsia Oblast	KRAM	165397
14.	8 August 1937	A. Środoń	Yaremche (former Dora), Gorgany, Yaremche Municipality, Ivano-Frankivsk Oblast	KRAM	024740

(2004). This neglected native taxon is probably frequent in western Ukraine, but its populations need to be refind. A critical revision on herbarium specimens of *E. acris* deposited in Ukrainian herbaria is deeply recommended.

Historical stations of *Erigeron acris* subsp. *serotinus* in Ukraine complete the natural range of this plant between south-eastern Poland and northern Romania, and also give an interesting speculation about its extension to Moldova.

ACKNOWLEDGEMENTS

I would like to express my gratitude to the curators of the herbaria KRA and KRAM for providing access to the collections of *Erigeron acris*. Special thanks are owed to Dr. Małgorzata Jaźwa for helping me read some handwritten label data.

REFERENCES

Greuter W. (2003): The Euro+Med treatment of *Astereae* (Compositae) – generic concepts and required new names. Willdenowia 33: 45–47.

Greuter W. (2006–2009): Compositae (pro parte majore). In: W. Greuter, E. von Raab-Straube (eds). Compositae. Euro+Med Plantbase – the information resource for Euro-Mediterranean plant diversity. http://ww2.bgbm.org

Mosyakin S.L., Fedoronchuk M.M. (1999): Vascular plants of Ukraine, a nomenclatural checklist. M.G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine, Kiev.

Nesom G.L. (2004): Taxonomic reevaluations in North American *Erigeron* (Asteraceae: Astereae). Sida 21, 1: 19–39.

Nesom G.L. (2008): Classification of subtribe *Conyzinae* (Asteraceae: Astereae). Lundellia 11: 8–38.

Paczoski J. (1898): Spis roślin zebranych w 1895 i 1896 r. we wschodniej Galicyi, na Bukowinie i w Komitacie marmaroskim na Węgrzech. Sprawozdanie Komisji Fizjograficznej 33: 1–106.

Paczoski J. (1899): Spis roślin zebranych na Podolu, w północnej Bessarabii i koło Zdołbunowa na Wołyniu. Sprawozdanie Komisji Fizjograficznej 34: 136–175.

Šída O. (1998): Taxonomic problems in *Erigeron* sect. *Trimorpha* (Compositae) in Eurasia. Preslia 70, 3: 259–269.

Šída O. (2000): *Erigeron acris* agg. v České republice a na Slovensku. Zprávy Českě Botanickě Společnosti 35, 1: 1–33.

Šída O. (2004): *Erigeron* L. – turan. In: B. Slavík, J. Štěpánková (eds). Květena České republiky. Vol. 7.Academia, Praha: 140–153.

Sulimierski F., Chlebowski B., Walewski W. (1880–1902): Słownik geograficzny Królestwa Polskiego i innych krajów słowiańskich. Vol. 1–15. Nakł. F. Sulimierskiego i W. Walewskiego, Warszawa.

Ślendziński A.J. (1877): Rośliny z okolicy Podola pomiędzy dolnym Zbruczem, Dniestrem a dolnym Seretem. Sprawozdanie Komisji Fizjograficznej 11: 155–197.

Ślendziński A.J. (1878): Rośliny międzyrzecza Zbruczu i Seretu. Sprawozdanie Komisji Fizjograficznej 12: 68–107.

Ślendziński A.J. (1879): Rośliny międzyrzecza Zbruczu i Seretu, przeważnie górnego ich biegu, zebrane w roku 1878. Sprawozdanie Komisji Fizjograficznej 13: 183–220.

Ślendziński A.J. (1881): Rośliny dolnego międzyrzecza Seretu i Złotej Lipy, oraz kilku miejscowości temu międzyrzeczu przyległych z wycieczki w roku 1879 odbytej. Sprawozdanie Komisji Fizjograficznej 15: 91–156.

Ukraine, ultimate travel guide (2006–2013). Geographical regions of Ukraine. http://ukrainetrek.com.

Verkhovna Rada of Ukraine (2006–2013). Regions of Ukraine and their composition (in Ukrainian). http://w1.c1.rada.gov.ua/pls/z7502/a002.